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SUDA YOSHIHISA**(54) CARBON MICROELECTRODE AND
MANUFACTURE THEREOF****(57) Abstract:**

PURPOSE: To improve the reproducibility of measurement by extruding and molding a composite material wherein crystalline fine carbon powder and organic caking material are dispersed and combined in a thin wire shape, thereafter baking the material in an inactive atmosphere at high temperature, carbonizing the incorporated organic caking material, and using the obtained pure composite carbon thin wire as a working electrode.

CONSTITUTION: A composite material wherein crystalline fine carbon powder and organic caking

material are dispersed and combined undergoes extrusion molding for obtaining an intended thin-wire shape. Then, the material is baked in an inactive atmosphere or in a non-oxidizing atmosphere to high temperature. The incorporated organic caking material is carbonized, and a pure composite carbon thin wire is manufactured and obtained. This wire is used as it is, or the wire which is impregnated with oil is used as a working electrode. The organic caking material is a mixed material of one kind or two or more kinds of organic macromolecular material and its monomers/oligomers, tars/pitches, dry-distilled pitches, thermoplastic resin, the initial polymers of thermosetting resin, and the like.

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